


Section II - Remarks

In an Office Action dated May 2, 2001, the examiner objected to Figures 1, 2A, 2B, 3A, and 3B for lacking a legend labeling the drawings prior art. Claims 3, 4, 10, 11, and 18 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite for using the suffix "-like." Claims 1-20 and 23-28 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent 5,861,659 to Okabe in view of the prior art described in the subject application. Claims 21 and 22 were also rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent 5,861,659 to Okabe in view of the prior art described in the subject application, further in view of U.S. Patent 5,751,015 to Corbett et al.

 In response to the examiner's objection to the drawings, applicants submit herewith a Proposed Drawing Amendment For Approval By Examiner. As indicated in this submission, Figures 1, 2A, 2B, 3A, and 3B have each been amended to add "Prior Art" legends, per the examiner's requirement.

Claims 3, 10, and 18 have each been amended to delete the phrase "in a concentric-like manner." Thus, the 35 U.S.C § 112, second paragraph rejection is obviated.

Applicants are admittedly bewildered by obviousness rejection of claims 1-28. Figure 5 of Okabe discloses a very specific embodiment of a vertical bipolar transistor. The Office Action states, "Okabe discloses an integrated circuit device having a conductive pad 114a to receive a input signal," In fact, element 114a of the Okabe embodiment is a collector electrode. It is not "a conductive pad to receive an input signal from an external signal line."

The Office Action then identifies "a first doped region 109 underlying and surrounding the conductive pad 114a." Clearly, this is simply not true. See, Fig 5 of Okabe.

The Office Action identifies "a first tap region 112a spaced apart from the (sic) and surrounding the first doped region 109." Actually, p⁺ type collector region 112a underlays the element previously identified in the Office Action as the 'conductive pad.'

The Office Action then seems to suggest that the 'tap region' is somehow connected to a first supply voltage "through the base metal electrode 114a." Actually, the collector electrode might be connected to a first supply voltage such as ground, but then again Okabe doesn't really

show any particular connection for the collector electrode.

The Office Action continues:

Okabe does not show an output driver transistor having a drain region and a source region, wherein the drain region is electrically coupled to the conductive pad. Okabe does not teach a second tap region surrounding the output driver transistor, and electrically and physically coupled to a second supply voltage and source region. Okabe also does not disclose the first tap region is a discontinuous region, and electrically coupled to a first supply voltage, the first and second supply voltages being ground, the bond pad having the conductive bonding layer includes a metal, the conductive tap region is a discontinuous region and the conductive region is polysilicon.

Remarkably, after documenting in great detail the depth and nature of Okabe's irrelevancy, i.e., after describing that Okabe has nothing to do with the I/O structure of the present invention which generally comprises a conductive pad and/or an output driver transistor, the examiner then combines Okabe with the prior art specifically distinguished in the subject application and arrives at an obviousness conclusion. Other than generally residing within the semiconductor field Okabe has no relation to the subject application whatsoever.

Okabe does not suggest in any way a conductive pad structure, i.e., a pad adapted to receive an input signal from an external signal line. One of ordinary skill in the art recognizes the very real differences between an internal transistor electrode and a signal line pad receiving an external signal. Okabe does not suggest in any way an output driver transistor. Absent any disclosure of the two principal elements of the present invention, it is doubtful Okabe is germane to a consideration of the pending claims.

In truth, the Office Action merely assumes away every novel and non-obvious aspect of the present invention. For example, the Office Action states,

Applicant Admitted Prior Art discloses a second tap region 410 surrounding the output driver transistor. The purpose of doing so would have to (sic) control or limit parasitic in and enhance the frequency response of the signal line (page 8, lines 4-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the integrated circuit device of Okabe to connect an output

transistor . . . to limit parasitic losses in and enhance the frequency response of the signal line as taught by applicant admitted prior art.

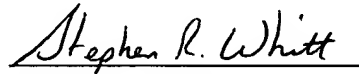
Applicants, in so far as they understand what's being suggested here, categorically disagree with this rejection by assumption and invite the examiner to either produce some prior art supporting his assumption, or withdraw the rejection.

The examiner, without recourse or reference to any prior art, assumes away the novelty of using a discontinuous first tap region. The Office Action states, "[i]t is well known that the supply voltages are grounded to reduce the electrostatic discharge and the cross-talk between the elements." Assuming this statement means anything, what does it have to do with the present inquiry?

The Corbett et al document cited in the Office Action adds nothing to this discussion. No basis in the prior art has been established to support any of the sweeping obviousness assertions that litter the Office Action. Claims 1-28 remain pending for consideration. If Okabe and Corbett et al, truly represent the closest prior art, applicants request allowance of the pending claims.

Respectfully submitted,

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Section III - Version with markings to show changes

The Claims

3. (Amended) The integrated circuit device of claim 2 wherein the first tap region substantially surrounds the first doped region [in a concentric-like manner].

10. (Amended) The integrated circuit device of claim 1 wherein the first tap region substantially surrounds the first doped region [in a concentric-like manner].

18. The bond pad of claim 17 wherein the conductive tap region substantially surrounds the doped region [in a concentric-like manner].